



**US Army Corps  
of Engineers**  
Huntington District

# Public Notice

In reply refer to:

Issuance Date:

**Public Notice No.** 200301078

July 31, 2004

**Stream:**

Expiration Date:

UT Joe's Creek

August 30, 2004

Address comments to:

US Army Corps of Engineers, Huntington District  
602 Eighth Street  
ATTN: CELBHE  
Huntington, West Virginia 25701-2070

## PUBLIC NOTICE

**TO WHOM IT MAY CONCERN:** The following application has been submitted for a Department of the Army Permit under the provisions of Section 404 of the Clean Water Act. This notice serves as the Corps of Engineers' request to the West Virginia Department of Environmental Protection to act on Section 401 Water Quality Certification for the following application.

**APPLICANT:** Wildcat Coal Company  
106 Lockheed Drive  
Beaver, West Virginia 25813

**LOCATION:** The proposed project is located on unnamed tributaries of Joes Creek, approximately 3.3 miles northeast of Orgas, in Boone and Kanawha Counties, West Virginia.

**DESCRIPTION OF THE PROPOSED WORK:** The applicant proposes to place fill material into waters of the U.S. in conjunction with the construction of five permanent valley fills, three temporary sediment ponds, two temporary road crossings, and three temporary low water crossing associated with the Wildcat Surface Mine. The applicant also proposes to construct another valley fill (No. 1A) outside the Corps' regulatory jurisdiction as verified by the Huntington District on February 4, 2004. In addition, the applicant proposes to mine through five streams to remove low water crossings. The construction of the proposed valley fills would result in the discharge of fill material into approximately 5,155 linear feet of waters of the U.S. Of this total, 4,600 linear feet is intermittent stream impacts and 555 linear feet is ephemeral stream impacts. Further, approximately 1,340 linear feet of intermittent stream channels would be temporarily impacted by the construction of the proposed sediment ponds. The proposed road crossings would temporarily impact 90 linear feet of intermittent stream channels while the proposed low water crossing would temporarily impact 60 linear feet of intermittent stream channels for a total of 150 linear feet of impact. Further, approximately 3,916 linear feet of intermittent stream channels and 194 linear feet of ephemeral stream channel would be temporarily impacted by the removal of underlying coal reserves. The affected stream segments would be restored to their pre-mining contour upon completion of mining. Lastly, approximately 1,605 of intermittent stream channels would be indirectly impacted by the drainage corridors located between the back of the sediment ponds and toes of the valley fills. In total, approximately 10,755 linear feet of jurisdictional ephemeral and intermittent streams and 0.48 acre of open water would be impacted by the placement of fill material. **Table A** of this public notice details the proposed mining activities and corresponding information with respect to the proposed impact locations and stream loss (linear feet). All of the proposed valley fills would drain watersheds of less than 250 acres and range from 101.57 acres to 181.75 acres as detailed on the **Table B** of this public notice.

The West Virginia Department of Environmental Protection (WVDEP) has approved the applicant's Surface Mining Permit application (S-3006-00) pursuant to the Surface Mining Control and Reclamation Act of 1977. The WVDEP also issued the applicant a National Pollutant Discharge Elimination System permit (WV1019295).

The coal reserve at the proposed mine site is found beneath a ridge system bounded to the north by the Kanawha / Boone County line, to the east by Route 74, to the west by Joe's Creek, and to the south by Coal Fork. The reserve is permitted as a multiple seam contour auger/highwall mining operation that is expected to recover approximately 4,988,000 tons of high quality, low sulfur coal within the following seams: No. 6 Block, No. 5 Block, Lower 5 Block, Clarion, Stockton, Upper Coalburg, and Lower Coalburg. The proposed operation is primarily a re-mining operation to be conducted on pre-law surface mining benches at the 5-Block and Coalburg seam horizons in order to recover additional reserves using a highwall miner. The coal seams would be accessed by removing the spoil at the base of the existing highwall. No "new" highwall or second cuts are proposed at the existing highwalls. This operation proposes to remine approximately 99,350 linear feet of existing highwall. The operation is expected to completely eliminate 83,600 linear feet or 84% of the existing highwall. The operation is expected to reduce the height of the existing highwall in the remaining 15,750 feet on the average from 24 feet to 14.5 feet or nearly 40%. As a general rule, the seams would be highwall mined from top to bottom as they are exposed. That rule would not hold true in areas where the spoil bench width is too narrow to operate the highwall miner as a seam is exposed. In that scenario, one or more lower seams would be highwall mined as they are exposed where bench width does allow mining. The upper seam(s) would then be mined, generally from bottom to top, on benches constructed with backfill at each successively higher coal seam.

Approximately 38.33 million cubic yards of in-place overburden are proposed to be excavated during the mining operation. A bulking factor of 20% was applied to the overburden to determine the Total Spoil Material (TSM) variable and totals a loose equivalent volume of 45.99 million cubic yards. The WVDEP's backfill model was processed using the average end area method to determine the variable BKF (the volume of material placed in the mine area); the BKF variable was determined to be 42.21 million cubic yards. The quantity of excess spoil material (ES) was determined to be 3.78 million cubic yards by subtracting BKF from TSM. The excess overburden would be placed in the proposed valley fills as detailed on the **Table C** of this public notice. A description of the proposed mining plan is below.

**Phase 1:** Mining of this project would commence on the Coalburg horizon in the location designated as Area 2. Access would be established to the eastern limits of the area along the pre-existing surface mine bench and valley fill. First cut material would be placed in Valley Fill 4 below the Lower Coalburg horizon and between the mineral removal areas of the 5-Block and Coalburg seam horizons. Sediment control below the Lower Coalburg horizon would be provided by existing dam 2, permit no. U-80-83. The Stockton, Upper and Lower Coalburg seams would be highwall mined as they are exposed. Subsequent mining would proceed westward toward the Remington operation, permit number U-80-83. Subsequent cut spoil would be placed in the previous pits and Valley Fill 4. Mining would cross the hollow and continue on the Coalburg horizon in Area 1 to the permit boundary. Spoil would continue to be placed in the previous pits and excess spoil in Valley Fill 4. Mining would then proceed to the 5-Block horizon and commence in the 5-block seams above the final Coalburg pit. First cut material would reclaim the final Coalburg pit via the gravity transport area.

The gravity transport area would be prepared by flagging its location in the field, constructing a berm on the Coalburg seam horizon to keep material from above within the permit limits and clearing the unmined area between the Coalburg and Clarion seam horizons of trees and brush. Spoil material would be placed into the gravity transport area with dozers, loaders and/or trucks and collected on the prepared Coalburg bench where it would be distributed with similar equipment to facilitate

reclamation along that bench. The maximum spoil build-up in the transport area shall be limited by the lesser of: the toe of the spoil reaching the toe of the constructed berm on the Coalburg horizon or the width of the transport area.

The 5-Block and Clarion mining would proceed west to the permit limit. Mining would then return to the first cut area and proceed toward the Remington Mine complex. The 6-Block mining would commence as soon as the 5-block backfill allows access to the seam. Due to an anticipated lack of spoil bench width as the seams are exposed, highwall mining is expected to occur in the Lower 5-Block and Clarion as the seams are exposed. The pit would then be backfilled to the Upper 5-Block floor and the seam would be mined from the backfill bench. There would be 139.40 acres of disturbance and 0.00 acres of reclamation during this phase.

**Phase 2:** Phase 2 would complete mining on the 5-Block horizon in Area 1 and begin mining on the 5-Block horizon in Area 2. The final pit at Area 1 would be reclaimed by over-stacking the backfill and then recovering the material necessary to finish backfilling the highwall at the final pit. Mining in Area 2 would begin near the head of the hollow above Valley Fill 4. Initial cut spoil would be placed in the Valley Fill 4. The 5-Block and Clarion mining would proceed south and west to the permit boundary at the Remington Mine complex. Mining on the 5-Block and Clarion would then move back to the first cut area and advance around the point toward the northern permit boundary of Area 2. Mining of the 6-Block seam would begin near the permit boundary at the Remington Mine complex when access can be gained from the 5-Block backfill. The 6-Block mining would proceed to the head of the hollow at valley fill no. 4. Reclamation activities would be advancing in Area 2 in the direction of mining. Reclamation of Area 1 would be proceeding from the southwest permit limits toward the Remington Mine complex. Portions of Sediment Ditches 22 and 25A would be constructed during this phase. An additional 112.60 acres would be disturbed with 23.56 acres reclaimed (228.44 Acres Total Disturbed - 23.56 Acres Total Reclaimed).

**Phase 3:** Mining finishes in Area 2 and moves to the Joes Creek portion of the project. Mining the 5-Block and Clarion would advance to the northern permit boundary of Area 2. 6-Block mining would resume in this area and proceed south, finishing on the point. Reclamation activities would continue as in phase 2 and also begin at the northern permit boundary of Area 2 and advance toward the Remington Mine complex. Valley fill 4 would be reclaimed during this phase. Permanent Sediment Ditches 19, 22, 23A, 24A, 24B, 25A, 25B and 26 and Sediment/Diversion Ditches 1E and 21F would be constructed. Pond 1 would be constructed and certified prior to any disturbance in the Joes Creek area. Mining would begin on the Coalburg horizon near the head of the hollow at Valley Fill 2. Initial cut spoil would be placed into Valley Fill 2 and in Valley Fill 2A between the mineral removal areas of the 5-Block and Coalburg seam horizons. Mining would proceed on the Coalburg horizon to the permit boundary at the southern limit of Area 3. Pond 3 would be constructed and certified prior to any disturbance in Valley Fill 1. Final pit reclamation would be facilitated with material from the 5-Block horizon via the gravity transport area. Mining on the 5-Block horizon would commence near the head of the hollow at Valley Fill 1A after mining of the Coalburg completed within the footprint of the valley fill. The 5-Block/Clarion mining would advance south to the permit boundary then resume near the first cut and advance toward Area 4. The 6-Block mining would begin near the southern permit boundary and progress to the head of hollow at Valley Fill 1A where mining would cease due to unfavorable conditions. There would be an additional 223.63 acres disturbed with 133.81 acres reclaimed (318.26 Acres Total Disturbed – 157.37 Acres Total Reclaimed).

**Phase 4:** Phase 4 is a continuation of the 5-Block/Clarion mining initiated during Phase 3 in Area 3 toward Area 4. Spoil material would be placed in the previous pits. Reclamation of Areas 1 and 2 would be completed. Permanent sediment ditches 20 and 23B and sediment/diversion ditches 21A and 21B would be constructed. Final reclamation would begin at the southern limits of Area 3 and follow the mining activity toward Area 4. Permanent Sediment Ditches 1 and 2A would be constructed. An additional 86.98 acres would be disturbed with 125.77 acres reclaimed (279.47 Acres Total Disturbed - 283.14 Acres Total Reclaimed).

**Phase 5:** The remainder of the permit would be mined in Phase 5. The 5-Block/Clarion mining would progress through Area 3 and into Areas 4 and 5. The 6-Block mining would resume in Area 4 and continue where conditions are favorable. Spoil material would be placed in previous pits and excess spoil would be placed in valley fill no. 2A. Mining would advance to the 5-Block horizon and then move to Coalburg horizon. Coalburg mining would begin in the area of Sediment Ditch 15. This is the only virgin stripping at the Coalburg horizon. Spoil from this mining area would be placed in the final pit where the 5-Block/Clarion mining stopped. Mining would then continue on the Coalburg horizon in the area near Pond 2 and advance southwest to the permit boundary. Spoil would be placed in the previous Coalburg pits. Pond 2 would be constructed and certified prior to any disturbance in the drainage area to be controlled by the structure. The final Coalburg pit would be reclaimed with spoil from the resumption of mining on the 5-Block horizon. 5-Block/Clarion and 6-Block mining would resume where it paused and advance northeast to the permit boundary through Area 5. Spoil would be placed into previous pits and along the existing bench while excess spoil would be placed into Valley Fill 3. Reclamation would continue in Area 3 toward Areas 4 and 5. Coalburg disturbance would be reclaimed to the drainage area controlled by pond no. 1. Valley Fill 1 would be fully reclaimed and permanent Sediment Ditches 6A, 7A, 8A, 9A, 10A and 11A would be installed. On the 5-Block horizon, final reclamation would progress from the southern limits of Area 3 through to a portion of the area controlled by Sediment Ditch 6B. Valley Fill 1A would be fully reclaimed and permanent Sediment Ditches 2B, 3B, 5B and a portion of 6B would be installed. Sediment/Diversion Ditches 4A and 4B would be constructed at Valley Fill 1A. An additional 175.73 acres would be disturbed with 157.17 acres reclaimed (298.03 Acres Total Disturbed - 440.30 Acres Total Reclaimed).

**Phase 6:** In Phase 6, all contour mining would have ceased and the highwall miner would finish. All earth moving would be reclamation related. The last disturbance in Areas 3 and 4 would be regraded and any areas not reclaimed during a previous phase would be ready for Phase 1 release. All remaining permanent sediment structures would be installed. Phase 6 is expected to be completed within twelve (12) months with an additional 298.03 acres reclaimed (0.00 Acres Total Disturbed – 738.34 Acres Total Reclaimed).

Total bonded permit area is 762.04 acres. The balance of the total bonded permit area, 23.70 acres is comprised of: 17.71 acres haul roads and infrequently used access roads and 5.99 acres sediment ponds.

According to the applicant, the purpose of the project is to construct valley fills to dispose of excess overburden spoil generated by surface mining operations into waters of the United States in order to achieve optimal recovery of available coal reserves within the project area and to provide the mandatory sediment control and access.

Plans for the proposed project are attached to this public notice.

**MITIGATION PLAN:** The applicant has submitted a compensatory mitigation plan (CMP) to compensate for permanent and temporary impacts to waters of the U.S. regulated by the Department of the Army, Corps of Engineers. To compensate for permanent impacts to waters of the U.S., the applicant proposes to create intermittent streams within the limits of Sediment Ditches 17B, 18B, 27, and 16. Establishment of the riffles would involve the use of shot mine rock and the pools would be formed due to the placement of cross-vanes in the channels. These cross-vane structures are expected to reduce near-bank shear stress and stream power, while increasing center channel shear stress and stream power to retain both flood-flow and sediment transport capacity. The structures would also establish grade control, reduce bank erosion, create a stable width/depth ratio, maintain channel capacity, and maintain sediment transport capacity and sediment competence. The riffles would be constructed every 5 to 7 stream widths and the rock size would be based on the pre-mining pebble counts.

The applicant proposes to route existing mine discharges into the created streams to provide the necessary ground water source for an intermittent stream while simultaneously reducing erosion to streams below the bench level by directing these discharges to existing, defined drains.

A permanent vegetated buffer zone would be established along the stream banks for all disturbed areas within 50 feet of the stream (25' on either side of the stream). Woody vegetation species would be added or replaced where necessary to meet this requirement. The native plantings would consist of a minimum of 70% woody tree stems and no more than 25% of these trees would be soft mast producers. The riparian zone would be revegetated in a random or scattered method and planted at a density of at least 30 to 100 trees and 20 to 50 shrubs per acre. Woody stems will be irregularly placed along the corridor and low growing shrubs would be planted between trees. The riparian zone would be revegetated to ensure succession of 80% of the planted native species.

The applicant also proposes to utilize the face ditches of Valley Fill 3 to compensate for the ephemeral sections of the streams lost during the placement of the permanent valley fills. The ditches would not be modified during final reclamation but would have a 25' riparian zone planted to either side of the ditches (total width of the riparian zone would be 50').

Due to the applicant's inability to provide perpetual protection of the affected areas, the applicant offset the permanent impacts to waters of the U.S. at a ratio of 1.5:1. The proposed mitigation stream lengths are detailed on **Table D** of this public notice.

To compensate for temporary stream impacts, the applicant proposes to restore the stream segments affected by sediment pond construction to their approximate pre-mining contour upon reclamation of the site. The applicant proposes to utilize Rosgen natural stream design techniques. The affected stream segments would be reestablished by removing the fill material from the embankment areas and sediment from within the pool areas. The riffles and pools would be re-established in those areas where construction of the pond eliminated the existing riffles and pools. Reestablishment of the riffles would involve the use of shot mine rock and the pools would be formed due to the placement of cross-vanes in the stream. The riffles would be constructed every 5 to 7 stream widths and the rock size would be based on the pre-mining pebble counts. A permanent vegetated buffer zone would be established along the stream banks for all disturbed areas within 50 feet of the stream (25' either side of the stream). Woody vegetation species would be added or replaced where necessary to meet this requirement. The native plantings would consist of a minimum of 70% woody

tree stems and no more than 25% of these trees would be soft mast producers. The riparian zone would be revegetated in a random or scattered method and planted at a density of at least 30 to 100 trees and 20 to 50 shrubs per acre. Woody stems would be irregularly placed along the corridor and low growing shrubs would be planted between trees. The riparian zone would be revegetated to ensure succession of 80% of the planted native species.

**ALTERNATIVE ANALYSIS:** Construction of the proposal does not require access to or siting within wetlands to fulfill its basic purpose and is considered a non-water dependent activity. The Section 404(b)(1) Guidelines stated for non-water dependent activities, practicable alternatives that do not involve wetlands are presumed to be available unless clearly demonstrated otherwise. All practicable alternatives not involving such discharges into special aquatic sites are presumed to have less adverse impacts to the aquatic system. The applicant is required to provide an alternative analysis that must overcome the presumption prior to receiving authorization for the placement of fill material. The applicant has submitted the required alternative analysis, which is currently under review by this office.

**WATER QUALITY CERTIFICATION:** A Section 401 Water Quality Certification is required for this project. It is the applicant's responsibility to obtain certification from the West Virginia Department of Environmental Protection.

**HISTORIC AND CULTURAL RESOURCES:** The National Register of Historic Places (NRHP) has been consulted and it has been determined there are no properties currently listed on the register that are in the area affected by the project. A copy of this public notice will be sent to the State Historic Preservation Office for their review. Comments concerning archeological sensitivity of a project area should be based upon collected data.

**ENDANGERED/THREATENED SPECIES REVIEW:** The Huntington District has consulted the most recently available information and has determined the project is not likely to affect the continued existence of any endangered species or threatened species, or result in the destruction or adverse modification of habitat of such species, which has been determined to be critical. This public notice serves as a request to the U.S. Fish and Wildlife Service for any additional information they may have on whether any listed or proposed to be listed endangered or threatened species may be present in the area which would be affected by the activity, pursuant to Section 7(c) of the Endangered Species Act of 1972 (as amended).


**PUBLIC INTEREST REVIEW AND COMMENT:** Any person who has an interest that may be adversely affected by the issuance of a permit may request a public hearing. The request must be submitted in writing to the District Engineer on or before the expiration date of this notice and must clearly set forth the interest which may be adversely affected and the manner in which the interest may be adversely affected by the activity.

Interested parties are invited to state any objections they may have to the proposed work. The decision whether to issue a permit will be based on an evaluation of the probable impact including cumulative impacts of the proposed activity on the public interest. That decision will reflect the national concern for both protection and utilization of important resources. The benefit that reasonably may be expected to accrue from the proposal must be balanced against its reasonably foreseeable detriments. All factors that may be relevant to the proposal will be considered including the cumulative effects thereof; of those are conservation, economics, aesthetics, general

environmental concerns, wetlands, historic properties, fish and wildlife values, flood hazards, floodplain values, land use, navigation, shoreline erosion and accretion, recreation, water supply and conservation, water quality, energy needs, safety, food and fiber production, mineral needs, considerations of property ownership and, in general, the needs and welfare of the people. In addition, the evaluation of the impact of the activity on the public interest will include application of the guidelines promulgated by the Administrator, Environmental Protection Agency, under the authority of Section 404(b) of the Clean Water Act. Written statements on these factors received in this office on or before the expiration date of this public notice will become a part of the record and will be considered in the final determination. A permit will be granted unless its issuance is found to be contrary to the public interest.

The Corps of Engineers is soliciting comments from the public; Federal, state, and local agencies and officials; Indian Tribes; and other interested parties in order to consider and evaluate the impacts of this proposed activity. Any comments received will be considered by the Corps of Engineers to determine whether to issue, modify, condition or deny a permit for this proposal. To make this decision, comments are used to assess impacts on endangered species, historic properties, water quality, general environmental effects, and the other public interest factors listed above. Comments are used in the preparation of an Environmental Assessment and/or an Environmental Impact Statement pursuant to the National Environmental Policy Act. Comments are also used to determine the need for a public hearing and to determine the overall public interest of the proposed activity.

If you have any questions concerning this public notice, please call Mrs. Teresa Spagna of the South Regulatory Section at 304-399-5710.

  
Ginger Mullins, Chief  
Regulatory Branch

(W)

Table A

	Permanent Impacts (Linear Feet)			Temporary Impacts (Sediment Pond and Embankment) (Linear Feet)			Secondary Impacts (Linear Feet)			Duration of Impacts	Final Mitigation Plan			
	Intermittent (feet)	Ephemeral (feet)	Total (feet)	Intermittent (feet)	Ephemeral (feet)	Total (feet)	Intermittent (feet)	Ephemeral (feet)	Total (feet)		Type of Mitigation	Intermittent	Ephemeral	Location
Mining Activity/ Stream Location														
Pond 3/Unnamed Tributary of Joel Creek				570		570				5-10 Years	Restoration & Stream Creation	855		(1)
Sediment Transport/ Unnamed Tributary of Joel Creek							100		100	5-10 Years	*	*		*
Fill 1/ Unnamed Tributary of Joel Creek	1030		1030							Permanent	Stream Creation	1545		(2)
Mined Through Area/ Unnamed Tributary of Joel Creek				156	194	350				5-10 Years	*	*	*	*
Pond 1/ Unnamed Tributary of Joel Creek				520		520				5-10 Years	Restoration & Stream Creation	780		(3)
Sediment Transport/ Unnamed Tributary of Joel Creek							105		105	5-10 Years	*	*		*
Fill 2/ Sediment Transport/ Unnamed Tributary of Joel Creek	525		525							Permanent	Stream Creation	788		(4)
Mined Through Area/ Unnamed Tributary of Joel Creek				445		445				5-10 Years	*	*		*





- (1) 570' STREAM RESTORATION AT POND 3 AND 285' STREAM CREATION AT SD-17B.
- (2) 1545' STREAM CREATION AT SD-17B.
- (3) 520' STREAM RESTORATION AT POND 1 AND 260' STREAM CREATION AT SD-17B.
- (4) 490' STREAM CREATION AT SD-17B AND 298' STREAM CREATION AT SD-18B.
- (5) 690' RIPARIAN PLANTING AT FILL 3 FACE DITCHES.
- (6) 1898' STREAM CREATION AT SD-18B.
- (7) INTERMITTENT: 234' STREAM CREATION AT SD-18B, 1830' STREAM CREATION AT SD-27,  
AND 606' STREAM CREATION AT SD-16.  
EPHEMERAL: 160' RIPARIAN PLANTING AT FILL 3 FACE DITCHES.
- (8) 250' STREAM RESTORATION AT POND 2 AND 274' STREAM CREATION AT SD-16.

\*THE SEDIMENT CORRIDORS ARE SECONDARY IMPACTS AND NO MITIGATION WILL BE REQUIRED OTHER THAN REMOVAL OF ANY ACCUMULATED SEDIMENT AND RE-ESTABLISHMENT OF ANY RIPARIAN VEGETATION REMOVED DURING THE REMOVAL OF THE ACCUMULATED SEDIMENT. THE ROAD CROSSINGS AND LOW WATER CROSSINGS ARE TEMPORARY IMPACTS AND NO MITIGATION WILL BE REQUIRED OTHER THAN THE REMOVAL OF THE CULVERTS (ALONG WITH THE SPOIL COVERING THE CULVERTS) AND RE-ESTABLISHMENT OF ANY RIPARIAN VEGETATION REMOVED DURING THE REMOVAL OF THE CULVERTS. THE CONTOUR MINING (MINED THROUGH AREAS) IS A TEMPORARY IMPACT AND NO MITIGATION WILL BE REQUIRED OTHER THAN REPLACING THE STREAM AFTER THE MINING OPERATION HAS MINED THROUGH THE AREA. NOTE THAT IN THE EVENT THE STREAMS WITHIN THE LIMITS OF THE SECONDARY IMPACTS WERE ADVERSELY AFFECTED BY THE MINING OPERATION, THE STREAMS WOULD BE RE-ESTABLISHED BY THE APPLICANT TO THE PRE-MINING CONDITION.

\*\*EXCESS OF 149 LINEAR FEET OF INTERMITTENT STREAM.

TOTAL LENGTH OF SD-17B IS 2580'.

TOTAL LENGTH OF SD-18B IS 2430'.

TOTAL LENGTH OF SD-27 IS 1830'.

TOTAL LENGTH OF SD-16 IS 880'.

TOTAL LENGTH OF FILL 3 FACE DITCHES IS 850'.

**Table B**

**Wildcat Coal Company  
Wildcat Surface Mine  
Affected Drainage Areas**

<b>Disposal Site</b>	<b>Drainage Area Fill Toe (acres)</b>
Valley Fill 1	181.75
Valley Fill 2 and 2A	165.76
Valley Fill 3	101.57
Valley Fill 4	117.60

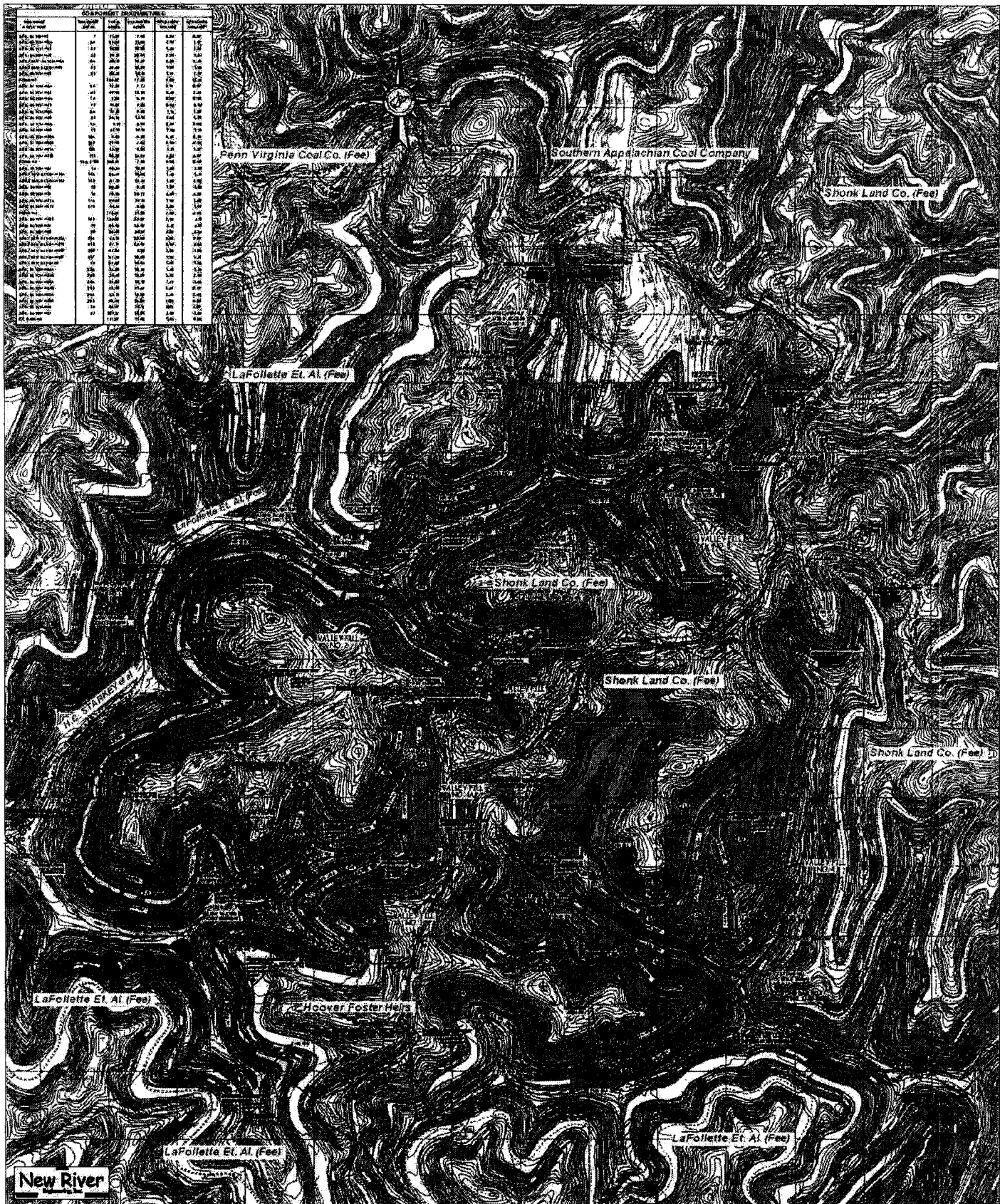
**Table C**

**Wildcat Coal Company  
Wildcat Surface Mine  
Total Fill Volume/Valley Fill Disposal Site**

<b>Disposal Site</b>	<b>Fill Volume Cubic Yards</b>
Valley Fill 1	239,000
Valley Fill 1A	434,900
Valley Fill 2	40,200
Valley Fill 2A	216,800
Valley Fill 3	346,500
Valley Fill 4	2,184,300
<b>Total</b>	<b>3.78</b>

**Table D**  
**Wildcat Coal Company**  
**Wildcat Surface Mine**  
**Reconstructed / Constructed Streams (Based On Rosgen Classification System)**

Facility	Flow (ft <sup>3</sup> /sec)	Slope (ft/ft)	Dis (in)	Bottom Width (ft)	Top Width (ft)	Side Slopes (hor)	Flow Depth (ft)	Bankfull Width (ft)	Cross Sectional Area (ft <sup>2</sup> )	Mean Depth (ft)	Width/ Depth Ratio	Floodproof Width (ft)	Entrenchment Ratio	Sinuosity	Classification
Pond 1	60.0	0.05	6.0	6.5	11.47	1.8:1	1.08	10.39	9.12	0.88	11.83	14.28	1.37	1.1	A3 / A4
Pond 2	55.0	0.04	6.0	6.5	11.54	1.8:1	1.10	10.46	9.33	0.89	11.73	14.42	1.38	1.2	A3 / A4
Pond 3	70.0	0.05	6.0	7.0	12.18	1.8:1	1.14	11.10	10.32	0.93	11.95	15.21	1.37	1.2	A3 / A4
SD-16	15.0	0.01	1.5	2.0	10.52	3.0:1	1.12	8.72	6.00	0.69	12.67	15.44	1.77	1.1	B3c / B4c
SD-17B	25.0	0.01	1.5	2.0	12.26	3.0:1	1.41	10.46	8.78	0.84	12.46	18.92	1.81	1.2	B3c / B4c
SD-18B	23.0	0.01	1.5	2.0	11.90	3.0:1	1.35	10.10	8.17	0.81	12.49	18.20	1.80	1.1	B3c / B4c
SD-27	32.0	0.01	1.5	2.0	13.28	3.0:1	1.57	11.42	10.53	0.92	12.38	20.84	1.82	1.7	B3c / B4c

[illegible]

**LEGEND:**

1. BRISING  
 2. POUCHING DOWN LINE  
 3. POUCHING LINE  
 4. SPIN OF POUCHING MARKS  
 5. PERMANENT ABRASION  
 6. WET'S CURVE  
 7. FLOW  
 8. WATERWALL (SANDWALL)  
 9. WALL WITH LAYERS  
 10. CHANGING AREA  
 11. WATERWALL (SANDWALL)  
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 99. WATERWALL (SANDWALL)  
 100. WATERWALL (SANDWALL)

### BONDED AREA LEGEND

- |            |                            |
|------------|----------------------------|
| 0000000000 | COAL RESERVE AREA          |
| 0000000000 | BONDED DISTURBANCE         |
| 0000000000 | BONDED CAGE                |
| 0000000000 | TOTAL BONDED PERMIT AREA   |
| 0000000000 | OVER BONDED AREA           |
| 0000000000 | ADJACENT PERMIT OPERATIONS |

**GRIP LINE LEGEND:**

- BLOCK CHOP  
 • BLOCK CHOP  
 • LOWEST BLOCK OF  
 CLUSTER CHOP  
 • STOCK CHOP  
 • WHEN CONSIDERS  
 LOWEST CONSTRUCTION

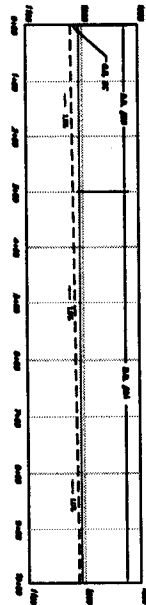
**THE UNIVERSITY OF CHICAGO**

**THE UNIVERSITY OF CHICAGO**

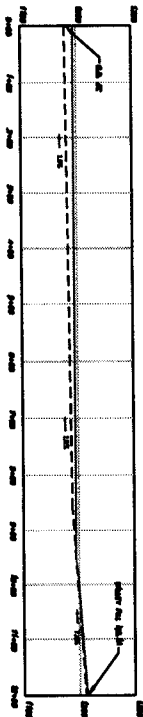
**WILDCAT COAL COMPANY, INC.**

WILCOX SURFACE MINE  
SMA-3006-00  
PROPOSAL AND DRAINAGE MAP

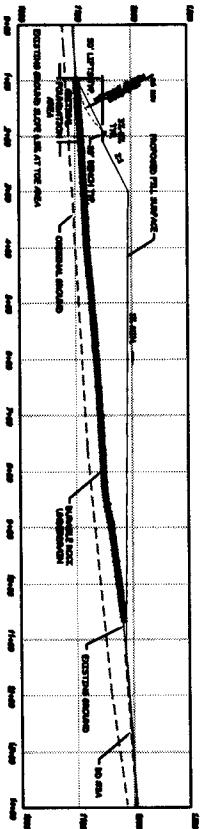
DATE	04/20/01	ORIGIN	JRS
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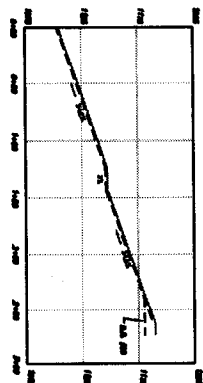
D.D. #5A & #5D - PROFILE  
SCALE: H = 100'



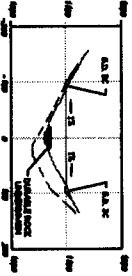
D.D. #3A - PROFILE  
SCALE: H = 100'



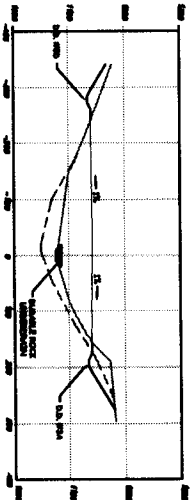
SECTION A-A  
SCALE: H = 100'



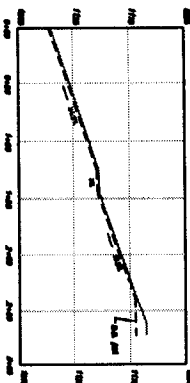
6.D. 5C - PROFILE  
SCALE: H = 100'



SECTION B-B  
SCALE: H = 100'



SECTION C-C  
SCALE: H = 100'



6.D. 3C - PROFILE  
SCALE: H = 100'

- NOTES:
1. SEE SECTION 1 FOR GENERAL EXISTING INFORMATION.
  2. SEE SECTION 2 FOR EXISTING EXISTING INFORMATION.
  3. SEE SECTION 3 FOR EXISTING EXISTING INFORMATION.
  4. SEE SECTION 4 FOR EXISTING EXISTING INFORMATION.

- LEGEND:
- PROPOSED ROAD LINE
  - EXISTING ROAD LINE
  - PROPOSED ROAD SURFACE
  - EXISTING ROAD SURFACE
  - PROPOSED ROAD GRADE
  - EXISTING ROAD GRADE
  - PROPOSED ROAD ELEVATION
  - EXISTING ROAD ELEVATION
  - PROPOSED ROAD WIDTH
  - EXISTING ROAD WIDTH
  - PROPOSED ROAD DIRECTION
  - EXISTING ROAD DIRECTION

WILDCAT COAL COMPANY, INC.

WILDCAT SURFACE MINE

VALLEY FILL NO. 1

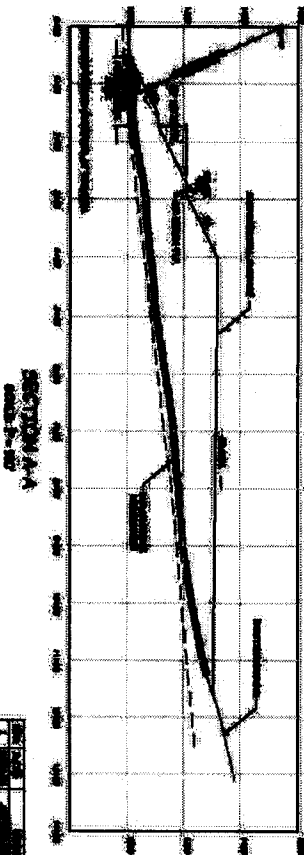
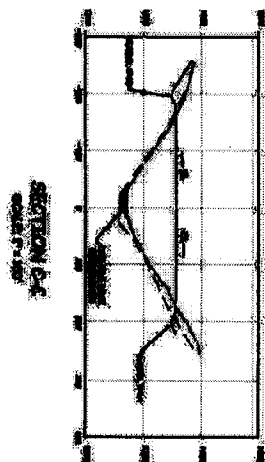
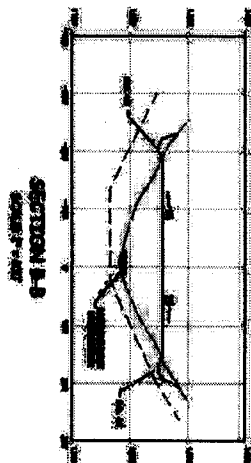
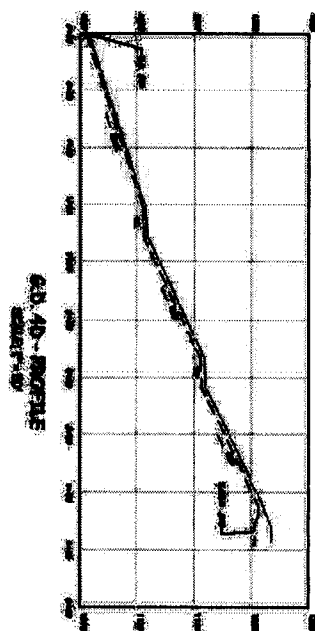
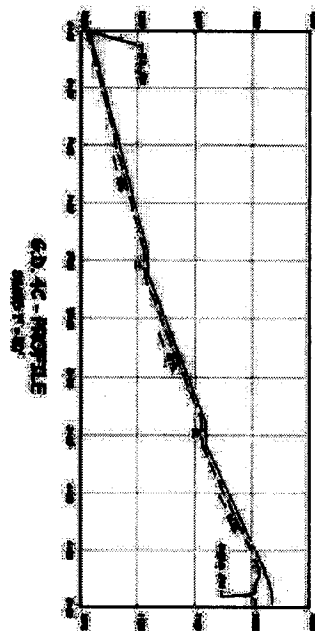
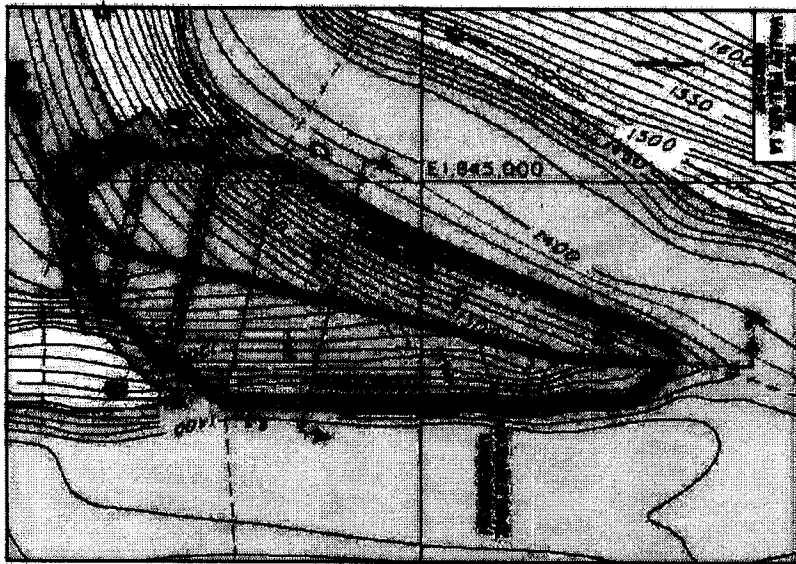
PLAN VIEW, PROFILE & SECTIONS

NO.	DATE	DESCRIPTION
1	10/1/00	INITIAL EXAMINATION/DESIGN
2	10/1/00	DESIGN
3	10/1/00	CONSTRUCTION
4	10/1/00	COMPLETION

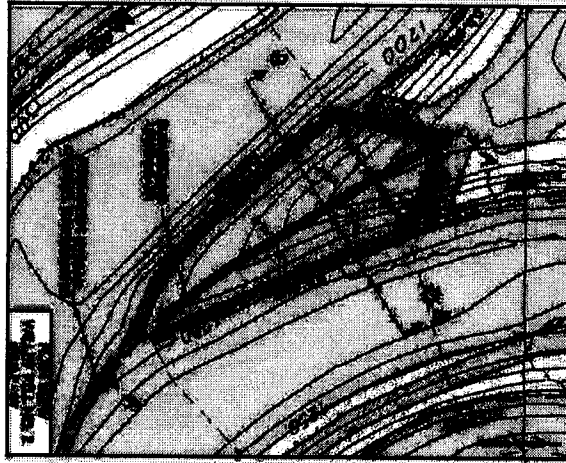
New River  
Engineering, Inc. DESIGN



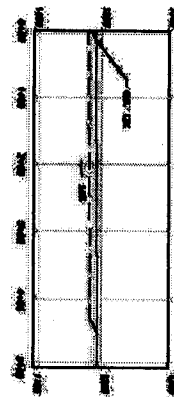
New River



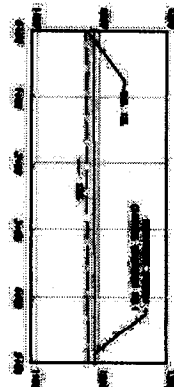
<p>WILSON'S CIVIL ENGINEERING, INC.</p> <p>1000 WILSON DRIVE</p> <p>WILSON, N.C. 27157</p> <p>TEL: 704/253-1111</p> <p>FAX: 704/253-1112</p>	
<p>PROJECT NO.</p> <p>DATE</p> <p>BY</p> <p>CHECKED</p> <p>APPROVED</p>	<p>PROJECT NO.</p> <p>DATE</p> <p>BY</p> <p>CHECKED</p> <p>APPROVED</p>



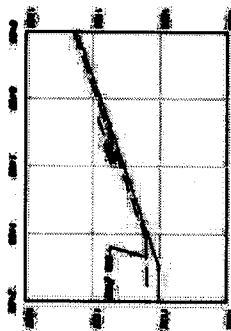
**D.D. 4021 - PROFILE**  
SCALE = 1"=50'



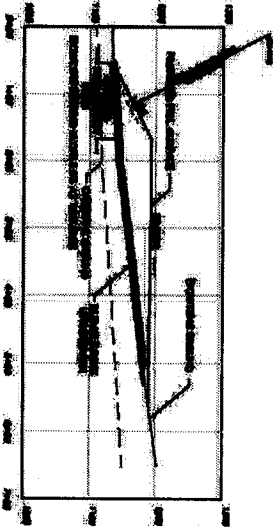
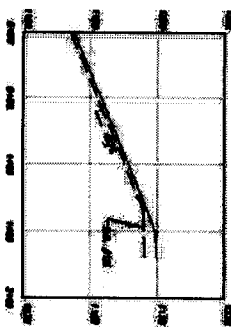
**D.D. 4022 - PROFILE**  
SCALE = 1"=50'



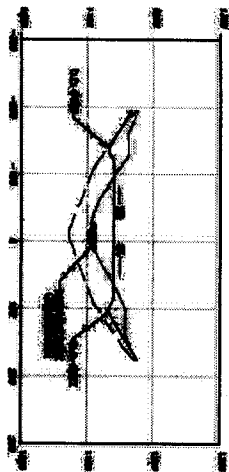
**D.D. 124 - PROFILE**  
SCALE = 1"=50'



**D.D. 126 - PROFILE**  
SCALE = 1"=50'



**SECTION A-A**  
SCALE = 1"=50'



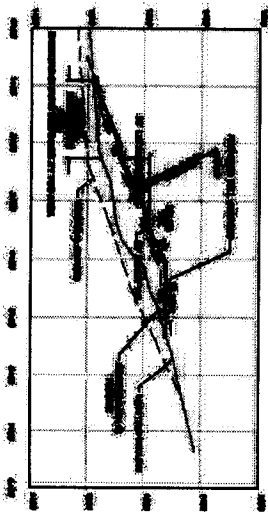
**SECTION B-B**  
SCALE = 1"=50'

**New River**



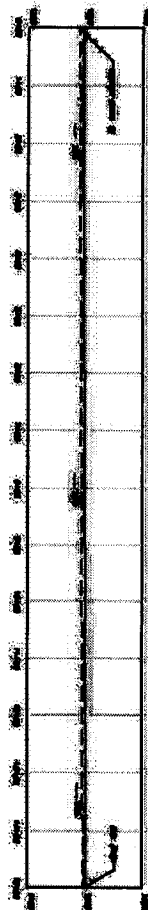
<b>WILCOAT ENGINEERING, INC.</b>	
1000 WILCOAT AVENUE WILCOAT, N.J. 07094	
TEL: (908) 833-1111 FAX: (908) 833-1112	



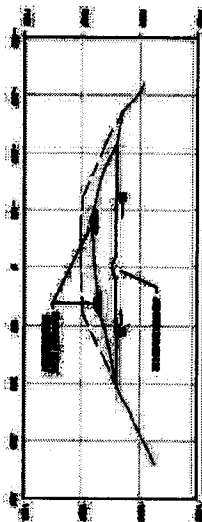


New River

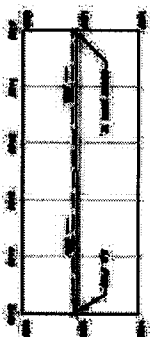
SECTION A-A  
ELEVATION - FEET



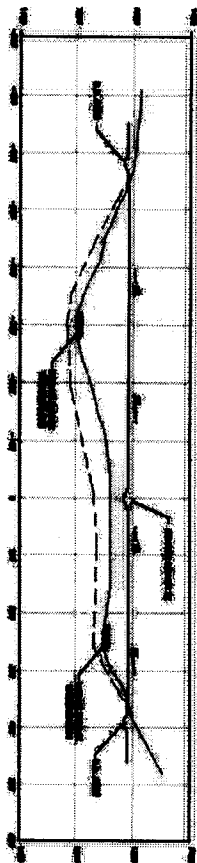
SECTION B-B  
ELEVATION - FEET



SECTION C-C  
ELEVATION - FEET

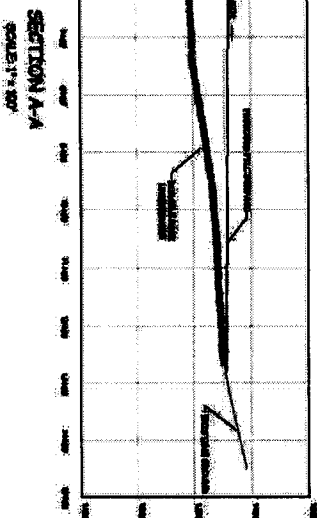
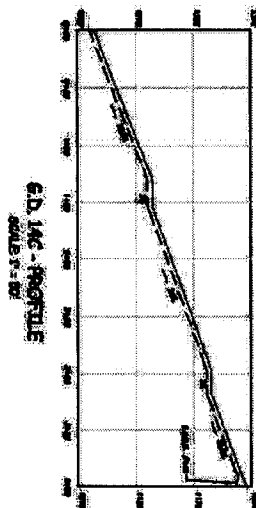
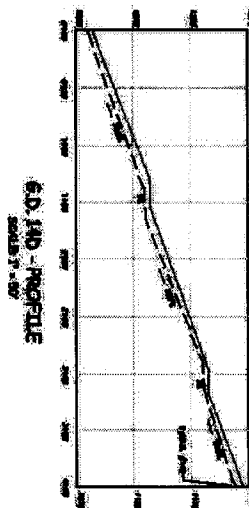
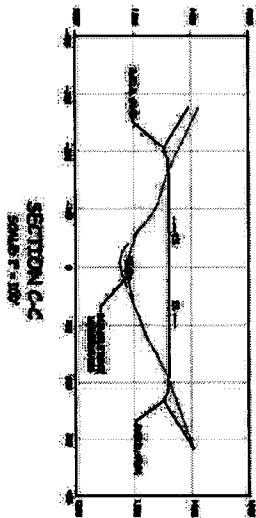
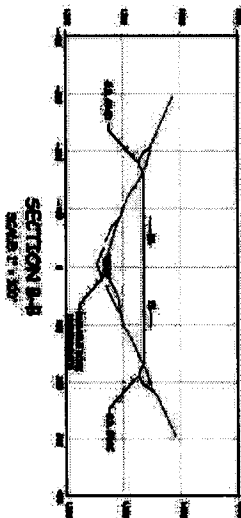
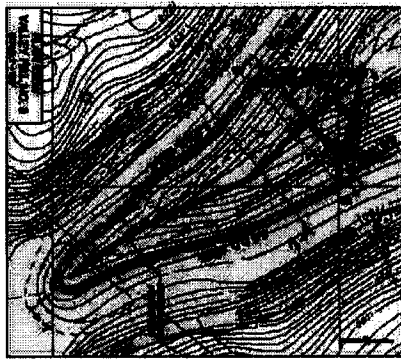


SECTION D-D  
ELEVATION - FEET



SECTION E-E  
ELEVATION - FEET

DATE	10/1/88
BY	J. L. HARRIS
CHECKED BY	J. L. HARRIS
APPROVED BY	J. L. HARRIS
PROJECT NO.	100-100-100
SECTION	SECTION A-A
SCALE	1" = 100'
PROJECT LOCATION	VALLEY FALL, MO.
PROJECT DESCRIPTION	NEW RIVER



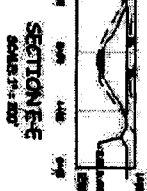
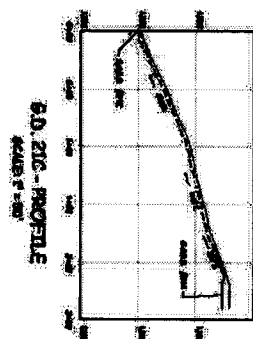
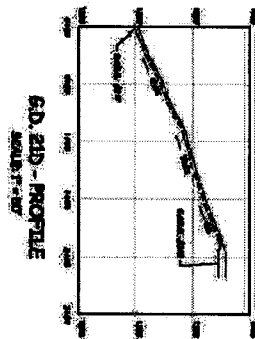
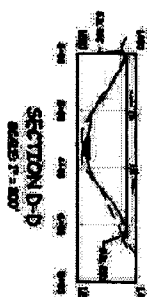
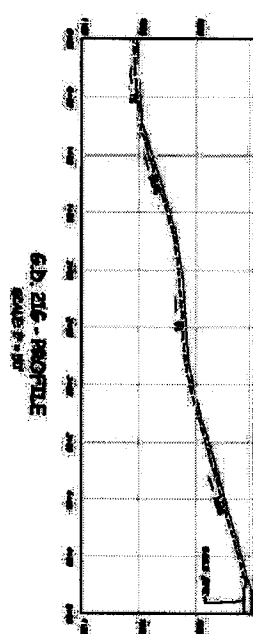
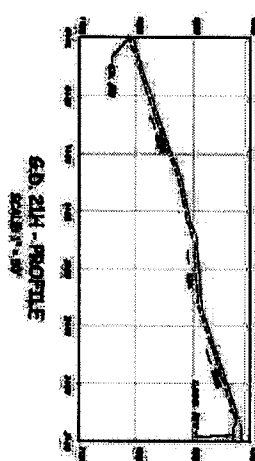
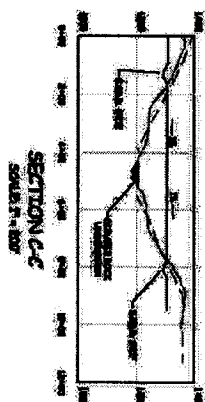
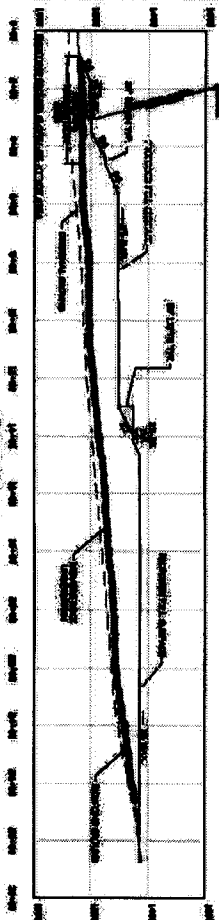
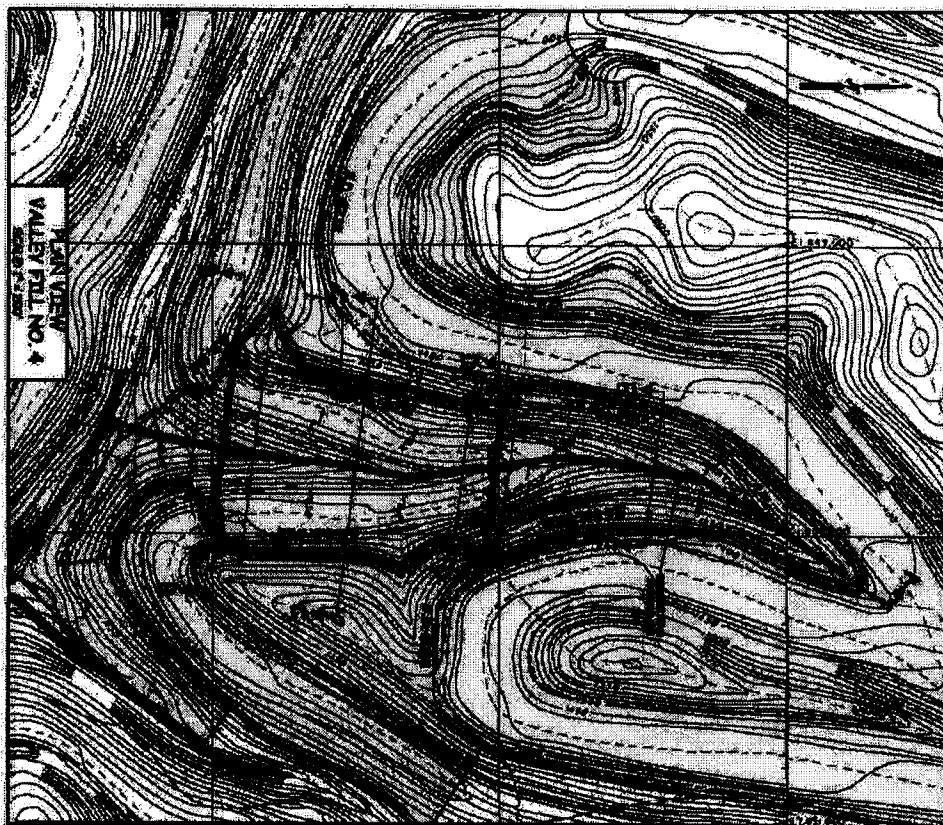
NO.	DESCRIPTION	DATE
1	DESIGNED BY	
2	CHECKED BY	
3	APPROVED BY	
4	DATE	

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NO.	DESCRIPTION	DATE
1	DESIGNED BY	
2	CHECKED BY	
3	APPROVED BY	
4	DATE	

<b>WILCOX ENGINEERING, INC.</b> 1400 N. 10TH ST. SUITE 200 DENVER, CO 80202 (303) 733-1100 FAX (303) 733-1101 WWW.WILCOX-ENGINEERING.COM	
PROJECT NO. 100-1000 VALLEY FILL NO. 3 1400 N. 10TH ST. & 10TH AVE.	
DATE: 10/1/00 DRAWN BY: J. WILCOX CHECKED BY: J. WILCOX APPROVED BY: J. WILCOX	

# New River



1	NAME	WILDCAT
2	ADDRESS	WILDCAT SHIPYARD AVENUE
3	CITY	VALLEY FILL NO. 4
4	STATE	FLA
5	ZIP	32109
6	PHONE	321-255-1111
7	FAX	321-255-1111
8	E-MAIL	WILDCAT@WILDCAT.COM
9	WEBSITE	WWW.WILDCAT.COM
10	INDUSTRY	SHIPYARD
11	PRODUCTS	SHIPYARD
12	MARKETING	SHIPYARD
13	SALES	SHIPYARD
14	FINANCE	SHIPYARD
15	OPERATIONS	SHIPYARD
16	MANUFACTURING	SHIPYARD
17	LOGISTICS	SHIPYARD
18	LEGAL	SHIPYARD
19	COMPLIANCE	SHIPYARD
20	ENVIRONMENTAL	SHIPYARD
21	SAFETY	SHIPYARD
22	QUALITY	SHIPYARD
23	TRAINING	SHIPYARD
24	RESEARCH	SHIPYARD
25	DEVELOPMENT	SHIPYARD
26	INNOVATION	SHIPYARD
27	TECHNOLOGY	SHIPYARD
28	INFORMATION	SHIPYARD
29	COMMUNICATIONS	SHIPYARD
30	MARKETING	SHIPYARD
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35	LOGISTICS	SHIPYARD
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55	COMPLIANCE	SHIPYARD
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57	SAFETY	SHIPYARD
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60	RESEARCH	SHIPYARD
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62	INNOVATION	SHIPYARD
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75	SAFETY	SHIPYARD
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95	TRAINING	SHIPYARD
96	RESEARCH	SHIPYARD
97	DEVELOPMENT	SHIPYARD
98	INNOVATION	SHIPYARD
99	TECHNOLOGY	SHIPYARD
100	INFORMATION	SHIPYARD